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## **First record of the occurrence of Mutillidae on Lanzarote Island (*Hymenoptera aculeata*)**

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Mutillidae is a large family of strongly sexually dimorphic and parasitoids hymenopterans, which includes more than 200 genera and 4300 species, about 20% of them distributed also (or exclusively) on continental or oceanic islands (Lo Cascio, 2015 [*Biodiversity Journal* 6: 529-592]). In these latter, their occurrence is constrained by some biological and morphological traits, especially the dependence from suitable hosts for the larval development and the low dispersal ability of the wingless females (Brothers, 1989 [Alternative life-history styles of mutillids wasps. In M.N. Bruton (ed.), *Alternative life-history styles of animals*]).

This may explain the low species richness that characterizes the mutillid wasps fauna of Canary Islands, although it shows a remarkable rate of endemism. Two endemics, *Dasylabris angelae* Suárez, 1959 and *D. canariensis* Suárez, 1970, are known respectively for Gran Canaria and Fuerteventura, while *Liomutilla canariensis* André, 1907, belonging to a distinctive genus, is recorded for Gomera, Hierro, La Palma, Tenerife and Gran Canaria; on the latter island have been also found *Myrmilla calva* (Villiers, 1789), widely distributed in Europe and North Africa, and an unidentified species belonging to the genus *Smicromyrme* Thomson, 1870 (see Báez & Ortega, 1978 [*Boletín de la Asociación española de Entomología* 2: 185-199]; Hohmann *et al.*, 1993 [*Veröffentlichungen aus dem Übersee-Museum Bremen Naturwissenschaften* 12: 14-712]). Thus, according to the data given in literature, Lanzarote was the only island of the archipelago without representatives of this hymenopteran family. During field investigations carried out on this island between 14 and 23 November 2015, we had the opportunity to detect the occurrence of mutillid wasps.

Three wandering female specimens of *Dasylabris canariensis* Suárez, 1970 were found in the coastal plain between Montaña Cavera and Juan del Hierro (29°07099 N, 13°36389 W). Apart from few rocky outcrops, the site is largely occupied by sandy dunes of aeolian origin, covered by scattered and discontinuous vegetation, and lies at about 100 m a.s.l. relatively far from the sea. Although the dune habitats with comparable characteristics are quite common on Lanzarote, this is the only place where so far it has been detected the occurrence of the species.

Our identification was confirmed during further examination at stereoscope and through the comparison with two female paratypes kept in the collection of the Museo Nacional de Ciencias Naturales of Madrid. Compared to the latter, the specimens from Lanzarote differ just in the pubescence that covers the spot on the vertex, which is silvery-white rather than reddish. However, it is likely an expression of the variability of the species and

don't seems sufficient for a distinction between the populations of the two islands, even at infraspecific level.

*Dasylabris canariensis* has been described by Suárez (1970 [*Graellsia* 25: 245-259, figg. 2-3]) from specimens collected by the entomologist A. Cabrera Díaz in several localities of Fuerteventura Island (Betancuria, Catalina García, Lajares, La Costilla, Los Granadillos) (currently at MNCN, see Izquierdo Moya *et al.*, 2010 [*Vieraea* 38: 23-54]). Since its description, the author highlighted the occurrence of close relationships between the new taxon and *D. rufocephala* (André, 1903), widely distributed in North Africa (Lelej, 2002 [*Catalogue of the Mutillidae (Hymenoptera) of the Palaearctic region*]), that were explained with the geographical proximity of Fuerteventura to the African mainland. Moreover, during the Last Glacial Maximum (18,000 years ago), in concomitance with the strongly diminished distance from Africa which may have promoted the species colonization, Fuerteventura has formed a large island together with Lanzarote. The finding on this latter island of a species so far considered endemic of Fuerteventura, as well as its apparent lacking on the western islands, seems therefore to be consistent to the pattern of faunal distribution within the Canary archipelago (Juan *et al.*, 2000 [*Trends in Ecology & Evolution* 15: 104-109]; Steinbauer & Beierkuhnlein, 2010 [*Erdkunde* 64: 57-71]).

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